California Public Employees' Retirement System

Independent Review of the Actuarial Valuation

for the Judges' Retirement System II
as of June 30, 2010

Report Completed In Satisfaction of
Task 3 of Contract 2009-5377

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Table of Contents

OVERVIEW 1

BACKGROUND 1

METHODOLOGY 1

REVIEW OF METHODS AND ASSUMPTIONS 3

INDEPENDENT VALUATION 4

RECONCILIATION OF RESULTS 4

TABLE 1: INDEPENDENT VALUATION RESULTS 5

TABLE 2: DEMOGRAPHIC COMPARISON 5

Overview

EFI Actuaries has completed an independent review of the Actuarial Valuation of the Judges' Retirement System II (JRS II, the System) as of June 30, 2010. Overall, we were able to certify that the liabilities and costs computed in this valuation are reasonable and were computed in accordance with generally accepted actuarial principles and practices. However, EFI did discover a problem with the total actuarial liability for retired members. A discussion of this issue is presented below.

The supporting calculations and the above issues are discussed in more detail below.

Background

Judges Retirement System II provides pensions and ancillary benefits to California state judges who were elected or appointed on or after November 9, 1994. Judges elected or appointed prior to that date are covered under Judges Retirement System I (JRS I). JRS I and JRS II are separate retirement plans with separate memberships, separate asset pools, and no financial interrelationship.

A judge who has reached 65 and is credited with 20 or more years of service under the System, or who has reached age 70 with five or more years, will be awarded either a lifetime pension or will be paid the balance of his or her monetary credits. The retiring judge makes the choice. The pension benefit is an annuity for life of 3.75% of highest 12 months pay per year of service, up to 75% of pay. The monetary credit balance is the accumulation of 8% of pay in employee contributions and 10% of pay designated as employer contributions from date of election or appointment. Death, disability, and termination benefits are also paid from the System.

Methodology

The review process involves three steps:

- Review of Methods and Assumptions

  The actuarial assumptions and methods employed in the JRS II Valuation were reviewed by EFI in order to establish that they meet acceptable standards of actuarial practice.

- Independent Valuation

  In order to verify the correctness of calculations in the JRS II Valuation, EFI conducted an independent, independent valuation using its own actuarial model. This independent valuation determines whether actuarial assumptions and methods are applied properly and yield the reported results.

In preparing our independent valuations, we relied on member and asset data supplied by CalPERS staff. As is usual in actuarial valuations, this data was neither audited nor independently verified.

- Reconciliation of Results

In the event that the figures computed by EFI fall outside of the established tolerance versus those computed by CalPERS' staff, reconciliation is required.

This reconciliation proceeds in four steps:

1. Establishing that the same member data has been used by EFI and by staff;
2. Researching methodological differences between the EFI and staff approaches to computing liabilities and costs;
3. Comparing individual test life results to uncover subtle differences in approach that may result in material differences in liabilities and costs.
4. Discuss with CalPERS Staff the nature and magnitude of the discrepancy and come to agreement on the cause and remedy.

Review of Methods and Assumptions

The actuarial methods and assumptions used in the JRS II Valuation are well within acceptable standards of actuarial practice.

Annual valuations of JRS II are completed using the Entry Age Normal Funding Method. The valuation date is June 30, 2010. Contributions are determined for the July 1, 2011 through June 30, 2012 fiscal year.

Actuarial assumptions used to compute System liabilities and normal costs include:

- An 7.25% annual rate of investment return, net of all expenses;
- Annual salary increases of 3.25%;
- Annual inflation of 3.00%;
- Retirement between the ages of 65 and 70 after five years of service;
- Termination rates from 0.225% to 0.9% per year, depending on age and service; and
- Active and retired mortality rates developed based on actual CalPERS experience during the period from 1997 to 2007.

More detailed information concerning the valuation assumptions can be found in the 2010 CalPERS Experience Study Report. EFI also performed a review of this Experience Study, and evaluated demographic assumptions as part of that review.

Both CalPERS staff and EFI ignored the possible impact of benefit limitations under Internal Revenue Code Section 415 on liabilities and contribution rates. The effect of this Code section on liabilities would be immaterial.

Independent Valuation

The JRS II Actuarial Valuation was performed by CalPERS staff using the Actuarial Valuation System (AVS). EFI validated the calculations by creating an *independent* actuarial model to develop the valuation results. The only data common to the models was the participant data; the EFI model was developed separately, without reference to the one used by staff for the Valuation.

As established in our Proposal of Services, we expect the values of comparable items derived from the two models to differ by less than the percentages shown in the following table.

Calculated Item	Acceptable Tolerance
Number of members- active, retired, inactive	0%
Annual payroll and member contributions	0%
Present value of pay; present value of member contributions	1%
Present value of benefit obligations	5%
Annual normal cost, employer contribution rates	5%

These tolerances are sufficiently stringent to detect material differences between the models. Differences outside of the Acceptable Tolerances listed above would not necessarily cause a failure to certify the valuation, but would result in additional scrutiny and reconciliation to determine the reasons.

Reconciliation of Results

Tables 1 and 2 below show the principal results of the independent valuations.

As seen in Table 1, the only area for which the independent valuation was not within the expected tolerance levels was the Present Value of Benefits for retired members. Upon examination of a group of test lives, we discovered that the Post Retirement Survivor Allowance (PRSA) was not valued for any retirees, even though most of them have spouses eligible to receive this additional benefit. All retirees were valued assuming that they were receiving a single life annuity; but some are actually receiving their benefit in the form of a joint and survivor annuity.

This issue was brought to the attention of the CalPERS staff, and they confirmed it.

After internal review by CalPERS, a recalculation was made, resulting in an increase in the retiree liabilities of approximately $2.3 million, which brings the liability well within 5% of the figure determined by EFI.

Other than this discrepancy, the valuation results computed by EFI are very close to those computed by CalPERS staff.

Table 1: Independent Valuation Results

	CalPERS JRS Valuation	EFI Independent Valuation	EFI to PERS Difference	Within Tolerance
1. Present Value of Benefits for Active Members	$ 1,046,312,562	$ 1,044,246,784	(0.20%)	Yes
2. Present Value of Benefits for Inactive Members	14,429,615	16,678,245	**15.58%**	**No**
3. Total Present Value of benefits	$ 1,060,742,176	$1,060,925,029	0.02%	Yes
4. Accrued Actuarial Liability for Active Members	506,257,856	502,519,002	(0.74%)	Yes
5. Total Accrued Actuarial Liability (4) +(2)	520,687,470	519,197,247	(0.29%)	Yes
6. Assets	461,071,403	461,071,403	0.00%	Yes
7. Unfunded Accrued Actuarial Liability (UAAL) [(5) – (6)]	$ 59,616,067	$58,125,844	(2.50%)	N/A
8. Covered payroll	$212,663,194	$212,663,194	0.00%	Yes
9. Present Value of Future Payroll	$1,880,829,879	$1,868,233,677	(0.67%)	Yes
10. Present Value of Future Employee Contributions	$150,466,427	$149,458,694	(0.67%)	Yes
11. Total Normal cost percentage	29.679%	28.997%	(2.30%)	Yes
12. Employer Normal Cost Percentage: (11) – 8.000%	21.679%	20.997%	(3.15%)	Yes
13. Payroll projected to 2012	$ 226,710,927	$ 226,710,927	0.00%	Yes
14. Employer Normal Cost for Fiscal 2012: (12) x (13)	49,148,662	47,602,493	(3.15%)	Yes
15. Amortization of UAAL	3,995,474	3,904,728	(2.50%)	N/A
16. Actuarial Required Contribution for Fiscal 2012	$ 53,144,136	$ 51,507,221	(3.08%)	Yes
17. Total Employer Contribution Rate for Fiscal 2012	**23.441%**	**22.719%**	**(3.08%)**	**Yes**

Table 2: Demographic Comparison

Number of Members	CalPERS JRS Valuation	EFI Independent Valuation	EFI to PERS Difference	Within Tolerance
Active	1,186	1,186	0.00%	Yes
Retired	18*	18*	0.00%	Yes
Inactive	1	1	0.00%	Yes

* Per valuation report, does not include one beneficiary receiving a 36 month pre-retirement death benefit